EXHIBIT E

Sophia M. Rios (305801)
BERGER MONTAGUE PC
12544 High Bluff Drive, Suite 340
San Diego, CA 92130
Tel: (619) 489-0300
Fax: (215) 875-4604
srios@bm.net

Eric L. Cramer (*Pro Hac Vice to be filed*)
Michael C. Dell'Angelo (*Pro Hac Vice to be filed*)
Patrick F. Madden (*Pro Hac Vice to be filed*)
Michaela Wallin (*Pro Hac Vice to be filed*)
BERGER MONTAGUE PC
1818 Market Street, Suite 3600
Philadelphia, PA 19103
Tel: (215) 875-3000
Fax: (215) 875-4604
ecramer@bm.net
mdellangelo@bm.net
pmadden@bm.net
mwallin@bm.net

Attorneys for Plaintiff and the Class
[Additional counsel listed on signature page]

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

STERLING INTERNATIONAL CONSULTING GROUP, on behalf of itself and all others similarly situated, Plaintiff, v. GOOGLE LLC, Defendant.	Case No.: 20-CV-9321 **CLASS ACTION COMPLAINT** **JURY TRIAL DEMANDED**

Table of Contents

Sterling International Consulting Group ("Plaintiff") files this action on behalf of itself and as a class action on behalf of all others similarly situated, pursuant to Rule 23 of the Federal Rules of Civil Procedure, against Defendant Google LLC ("Google" or "Defendant"). Plaintiff seeks treble damages and injunctive relief for Defendant's violations of Sections 1 and 2 of the Sherman Act, 15 U.S.C. §§1, 2. Plaintiff complains and alleges as follows based on: (a) its personal knowledge; (b) the investigation of Plaintiff's counsel; and (c) information and belief.

I. NATURE OF ACTION AND SUMMARY

1. This is a civil antitrust action under Sections 1 and 2 of the Sherman Act for treble damages and other relief arising out of Google's overarching anticompetitive scheme (the "Scheme") to capture a dominant share of the revenues associated with services required to place open-web display ads. Specifically, Google has obtained and maintained a monopoly in the market for providing publisher ad server services (the "Publisher Ad Server Market"), and has used that power to artificially inflate its prices charged to "Publishers."

2. Plaintiff is a "Publisher": Plaintiff operates a website on which it sells space to advertisers to place digital display ads.

3. To sell its ad space, Plaintiff directly purchases publisher ad server services from Google. Publisher ad servers identify ad space that gets created when users load Publishers' webpages, and then solicit and organize bids from various sources of advertiser demand to fill the space. Publisher ad server providers receive compensation in a form of a cut of the payments advertisers make for their ads to appear in Publishers' webpages.

4. Plaintiff, like other purchasers of Google's publisher ad server services, depends on Google to solicit and organize bids from advertisers for its website's ad inventory.

5. When users generate ad inventory on Publishers' sites by loading the page, this sets off a series of processes in what is known as the "Ad Tech Stack." The publisher ad server notifies demand sources (*e.g.*, "ad exchanges" or "ad networks" that run auctions between advertisers) of the existence of ad space. The demand sources provide bids from their participating advertisers to the publisher ad server. Once the ad server identifies the winning bid, it obtains the winning advertisement from the advertiser's

representatives in the Ad Tech Stack and places the ads. The entire process typically takes less than a second.

6. Google controls the dominant services at each level of the Ad Tech Stack. Most importantly, Google controls (1) the dominant publisher ad server products, (2) the dominant ad exchange and ad network, and (3) the dominant advertiser ad server.

7. Google thus controls which ad inventory a dominant share of advertisers will bid on, which advertisers can participate in the most significant auctions (Google's auctions), and how Publishers prioritize and compare different demand sources (*e.g.*, ad exchange auctions, ads sold directly by a Publisher to an advertiser, and other auction types) to identify the advertiser that ultimately "wins" the right to place an ad in a particular ad slot.

8. Through a series of anticompetitive acts beginning by at least 2007 and continuing through the present (together, the "Scheme"), Google has illegally acquired, enhanced, and maintained dominant positions in the Publisher Ad Server Market.

9. First, Google engaged in a series of acquisitions designed to give it a significant market presence at each level of the Ad Tech Stack. Most notably, Google acquired DoubleClick in 2007, a company with the then-highest market share in the Publisher Ad Server Market.

10. Second, Google engaged in exclusionary conduct designed to entrench its offerings at each level of the Ad Tech Stack and disadvantage actual and potential rivals. For example, in selling its services to advertisers, Google ties its ad targeting and attribution data services to its advertiser-facing ad tech services.[1] Because these data services are critical to advertisers, Google was able to amass a substantial pool of advertiser clients through the tying arrangement. Google then used its positions at other levels of the Ad Tech Stack to control Publishers' access to that pool of advertiser demand. Specifically, Google required its advertisers to bid in Google-controlled auctions (through Google's ad exchange and/or ad network). Google then controlled how Publishers could access bids from Google-

[1] As set forth herein, Google's data on users is unparalleled. Google gleans data from its consumer-facing offerings including, *inter alia*, its market-leading web browser (Chrome), its popular email service (Gmail), the Android operating system ("OS") in use on hundreds of millions of mobile devices, Google's search data, and Google's ad placement products.

controlled auctions, essentially requiring Publishers who wanted to receive bids from Google-controlled auctions to use a Google publisher ad server. This conduct coerces Publishers to use Google's publisher ad server products.

11. Third, as more and more Publishers adopted Google's publisher ad server products, Google reinforced its control on the advertiser side of the Ad Tech Stack through similar conduct. In particular, Google gave its own demand sources (*e.g.*, bids from its ad exchange) privileged access to Google's Publisher-clients' ad space through its control over a dominant share of Publishers' ad servers. By disadvantaging bids from non-Google demand sources, advertisers who want to display ads on Google's Publisher-clients must use Google's advertiser-facing products. The resulting increase in the number of advertisers in Google's pool of clients then further increases Publishers' need to use Google ad servers, further entrenching Google's market dominance.

12. Fourth, Google has taken a variety of measures to impair potential rivals' ability to collect user data and use such data to target advertisements. For example, Google has coerced Publishers to create content for mobile users in a format known as "accelerated mobile pages" or "AMP" by suppressing non-AMP content in Google Search results. Then, when Publishers offer content in AMP format, Google caches the AMP pages such that when a user attempts to navigate to the content from, *inter alia*, Google Search results or the Google News app, Google serves the content from Google's (and not the Publisher's) servers. As a result, Publishers (and any third-party tracker the Publishers engage) cannot obtain data from their users that could later be used to target advertisements. Similarly, Google has announced imminent changes to features of its popular Chrome web browser that will inhibit potential rivals from collecting data through third-party cookies and/or DNS data.[2]

13. Fifth, according to the complaint filed by the Texas Attorney General (and other state attorneys general), Google made an unlawful agreement with its largest potential rival—Facebook, Inc. Through the agreement the two advertising behemoths agreed to cooperate rather than compete. Such conduct removed significant competitive pressure on Google.

[2] As discussed *infra*, third-party cookies and DNS data tracking are mechanisms that potential competitors can use to amass data that would allow advertisers to target their advertisements without relying on Google's data services.

14. The absence of competition in the Publisher Ad Server Market caused by Google's Scheme allows Google to charge Publishers supracompetitive prices for its publisher ad server services. Because Google's Scheme has effectively destroyed competition in the Publisher Ad Server Market, Publishers have no choice but to pay the supracompetitive prices—extracted as a percentage of their advertising revenue.

15. As alleged herein, Google's conduct has had substantial anticompetitive effects in the Publisher Ad Server Market and has harmed Plaintiff and members of the Class. Plaintiff and members of the proposed Class accordingly seek compensatory and injunctive relief for violations of the Sherman Act, 15 U.S.C. §§ 1, 2.

II. JURISDICTION AND VENUE

16. Plaintiff brings this action under Sections 1 and 2 of the Sherman Act, 15 U.S.C. §§ 1, 2.

17. Plaintiff has been injured, and is likely to continue to be injured, as a direct result of Defendant's unlawful conduct alleged herein.

18. The United States District Court for the Northern District of California has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1337(a), and Section 4 of the Clayton Act, 15 U.S.C. § 15(a)(2).

19. The United States District Court for the Northern District of California also has subject matter jurisdiction over this action pursuant to 28 U.S.C. § 1332(d). The amount in controversy exceeds $5,000,000 exclusive of interests and costs, and Plaintiff and a significant proportion of the members of the proposed Class are citizens of a state different from Defendant.

20. Venue is proper in this District under Sections 4 and 12 of the Clayton Act, 15 U.S.C. §§ 15, 22. Google is headquartered in this District, its principal business operations are based in this District, and the Scheme was formulated and carried out in this District. Venue also is proper pursuant to 28 U.S.C. § 1391 for the same reasons.

21. Additionally, Plaintiff and members of the proposed Class have contracts with Google containing a forum selection clause. The forum selection clause requires all claims between the parties to be resolved "exclusively in the federal or state courts of Santa Clara County, California," which includes this District.

III. PARTIES

22. Plaintiff Sterling International Consulting Group is a Delaware Corporation with its principal place of business in Statesville, NC. Plaintiff operates an ad-supported website that uses a Google publisher ad server to identify the creation of ad inventory, obtain bids from demand sources, and fill the ad space.

23. Defendant Google is a Delaware corporation with its principal place of business in Mountain View, California.

IV. DIGITAL DISPLAY ADVERTISING

24. Digital advertising has exploded in recent years. Worldwide digital advertising spending was estimated to be $194.6 billion in 2016 and rose to $325 billion in 2019.

25. The United States accounts for a substantial proportion of those revenue figures. In 2019, for example, the United States accounted for approximately 40% of the global digital advertising revenues.

26. Digital advertising takes several complementary forms. For example, advertisements can be targeted to consumers, *inter alia*, as text-based ads to appear with search engine query results ("search ads"), as display ads appearing in-line in Publishers' content such as blog posts or news articles ("display ads"), or as ads in social media feeds.

27. Advertisers purchase one format or another to serve their different goals. For instance, advertisers may purchase search ads to reach consumers actively looking to make a purchase by searching for a particular product or company. By contrast, they may purchase display ads on a Publisher's site to increase brand awareness or to market a product to a user that put the product in his shopping cart but did not complete the purchase.

28. While search ads are targeted principally based on the search terms the user inputs into the search engine, display ads are shown to each user who loads a webpage programmed to display advertising. Thus, data about the webpage user is critical to advertisers seeking to display their advertisement to such user.

29. Publishers, who operate websites and mobile applications, are necessarily restricted in the types of ad formats they can sell. A news website, for example, can generally sell display ads alongside its news articles but cannot generally sell search ads to monetize the same content.

A. How Digital Display Advertising Works

30. Publishers sell their ad inventory to advertisers either directly through their marketing departments or indirectly through programmatic ad auctions run by their publisher ad server and/or ad exchanges and ad networks.

31. Generally, only large Publishers have the means and/or incentive to sell advertisements directly to advertisers (so-called "direct-sold" ads) due to the need for internal staffing and general advertiser demand for the Publishers' ad inventory.

32. Even those Publishers that sell ad space directly to advertisers cannot always predict how many ad spaces they have available for direct-sold ads because the number of ad spaces is dependent on the number of users who visit each Publisher's website (as well as other factors specific to the Publishers' deals with advertisers, *e.g.*, specific criteria for users who would be targeted with the ads). Thus, selling inventory through programmatic ad auctions permits Publishers to sell their remnant inventory that either does not qualify for their direct-sold deals or where the programmatic placement would fetch a higher price than the direct-sold ad deals. Additionally, some Publishers sell the entirety of their inventory indirectly through programmatic ad auctions.

33. Programmatic ad auctions are run in various forms by ad exchange, ad networks, and ad servers. Their purpose is to determine which advertiser can place its ad in a particular ad slot created when a user loads a Publisher's webpage.

34. Instead of advertisers placing an order for a fixed amount of impressions (*i.e.*, user views) from a Publisher as they would in direct-sold ads, each auction organizer (*i.e.*, the ad exchange, ad server, or ad network) auctions the ad slot between its participating advertisers in real time when the page is loaded. This process—in which a user loads a webpage, the auction organizer conducts the auction, and the ad gets placed—occurs automatically (usually taking a few hundred milliseconds).

35. The process involves several entities providing services in the "Ad Tech Stack." On one end of the Ad Tech Stack, the Publisher engages a publisher ad server. The ad server can conduct its own

auctions and/or it can solicit bids from ad exchanges and/or ad networks, each of which serve as middlemen between Publishers and advertisers.

36. On the other end of the Ad Tech Stack, advertisers engage an advertiser ad server and a "demand side platform"[3] or "DSP." The advertiser ad server performs the function of storing the advertisers' ads, serving advertisers ads when the advertiser wins auctions, and tracks the advertiser' ad campaign results. The DSP manages advertisers' programmatic ad buying. The DSP essentially automates the process of bidding on advertisers' behalf in ad auctions.

37. Thus, the Ad Tech Stack looks like this:

Figure 1: The Ad Tech Stack

38. The Publisher- and advertiser-facing services in the Ad Tech Stack are not always fully interoperable, meaning that ad tech service providers control the extent to which other service providers' clients (Publishers or advertisers) can transact with each other.

39. As one relevant example, Google has not allowed Publishers who are not customers of Google's ad tech services on the supply side[4] to access Google's auctions to obtain real-time bids from Google's pool of advertisers on the demand side.

40. As a result of this interoperability issue, Publishers (and advertisers) consider the demand (supply) that their publisher ad server (advertiser ad server and/or DSP) can access. In other words, a key consideration for Publishers in selecting an ad server is what demand (and on what terms) the ad server can solicit bids from different demand sources; the more advertisers (who are expected to bid the most) who participate in the auctions the ad server can access the better. Conversely, if a publisher ad server

[3] Publishers may also engage a platform (called a "supply side platform" or "SSP") to work with ad exchanges. Google has collapsed many of these functions into single offerings. As a result, there is relatively little distinction between the function of a publisher ad server and a SSP today.

[4] Publishers are the "supply" side because they generate the "supply" of ad inventory. Advertisers are the "demand" side because they purchase the ability to place ads in Publishers' ad inventory.

cannot access significant demand pools, the publisher ad server cannot compete effectively in the market against Google's publisher ad server products.

B. The Importance of Data in Digital Advertising

41. The digital economy more broadly relies heavily on collecting, mining, analyzing, and monetizing data. Personal information collected by companies in the digital economy has become a substantial intangible asset used to create value, not unlike copyrights, patents, and goodwill.

42. Traditionally, advertising has relied on targeting methods. For example, when an advertiser wanted to market nationwide, the advertiser might purchase advertising space in nationally distributed newspapers and magazines (*e.g.*, USA Today or Newsweek). As a result, newspapers, magazines, and television stations tracked and kept detailed reader/viewer data. Their marketing departments (and/or contractors) would then work with advertisers (and/or their agents and contractors) to provide information on the potential reach and targeting capability of advertising on the media.

43. Digital advertising is not different in its reliance on targeting. However, the availability of data on users enable digital advertisers to target advertising with far more precision.

44. Different forms of digital advertising use different types of data. For example, when an advertiser markets to users of a search engine, the advertiser is using the user's search terms to target advertising. When seeking to use display advertisements, whether on a social network platform or on a Publisher's site, an advertiser can target users better with more personalized data about the individual users. So, if an advertiser knows a particular person used the advertiser's website and placed merchandise in his or her shopping cart without purchasing the item, that advertiser may place significant value being able to market *that* merchandise to *that* person as the person visits other websites. As another example, a particular advertiser (whether a retailer, political campaign, or services provider, etc.) may know that people with particular characteristics (*e.g.*, with certain interests like sports, travel, etc., with certain incomes or wealth, or located in a particular place) would be receptive to their marketing. To such advertisers, data on who is receiving advertisements is a valuable and critical element to their advertising campaigns.

45. One company ran a trial in 2019 to compare the revenue Publishers in the United Kingdom received from advertising benefiting from personalized data with revenue received from

advertising that did not use personalized data. The results indicated that U.K. Publishers earned between 50% and 65% less revenue when they were unable to sell personalized advertising but competed with others who could.

46. In digital advertising, a key input is data on consumers who would be targeted by a given advertisement. The more targeted an ad, the more likely it is that users act upon it (*e.g.*, click on the ad's link), and therefore the higher the return on investment is. Thus, advertisers are willing to (and do) bid far more when they have significant data on a user than when they have little or no data.

47. It is precisely because consumer data is the key input that Google and Facebook have emerged as the dominant players in the broader digital advertising sphere. Through its data access, Google dominates search advertising and the ad tech services that place advertising on Publishers' websites. Google achieved its dominance in no small part because of its ability to collect particular types of user data. Google's control over consumer-facing products, *e.g.*, Search, Android OS, Gmail, Maps, YouTube, Chrome, and its ad tech services, provides Google with unmatched access to user data based on what websites users view, what they search for, what emails they receive, where they go and how often they go there, where they live, where they work, what videos they watch on YouTube, what apps they use on their phone, and more.

V. GOOGLE'S BUSINESS

48. Google offers myriad "free" services to consumers, such as Google Search, Google Chrome, Google Maps, YouTube, and Android OS. While consumers do not compensate Google for those services with money, consumers do allow Google to collect data from them relating to those interactions. For example, Google's Android OS provides Google with location data, Google Search provides Google with data on what a particular user is looking for online, and YouTube provides Google with data on user interests.

49. Google uses the data gathered from consumers using these "free" services (as well as other Google business lines, including its advertising services) to target advertisements displayed on Publishers' webpages, making billions of dollars a year in the process.

50. Because of the data Google gleans from users of its "free" services, Google has a nearly unparalleled ability to target advertisements to users. As a result, one of Google's most significant

revenue streams comes from assisting Publishers in filling their ad inventory, a role Google complements with interrelated services throughout the Ad Tech Stack.

51. Google's unparalleled access to user data has been a significant factor in Google's domination of the digital display ad ecosystem with its offerings at each level of the Ad Tech Stack. Google's offerings include services that work together to (1) identify advertising inventory when a user loads a Publisher's content, (2) collect bids from advertisers interested in serving an ad to particular Publishers, (3) determine the winning advertiser, and (4) serve the ad—all of which happens in milliseconds.

VI. GOOGLE'S MARKET POWER IN THE PUBLISHER AD SERVER MARKET

A. The Relevant Market

52. The Relevant Market is the market for publisher ad server services (the "Publisher Ad Server Market" or the "Market").

53. Publishers are purchasers of services in the Publisher Ad Server Market. Companies, like Google, who offer publisher ad server products are sellers of services in the Market.

54. Publisher ad servers are inventory management systems that Publishers use to holistically manage their online display advertising inventory—the image-based graphical ads alongside web content. They provide features such as: (1) reservation-based sales technology to support a Publisher's direct sales efforts; (2) inventory forecasting technology to help a Publisher determine what inventory will be available to sell; (3) a user interface through which a Publisher's sales team can input directly sold campaign requirements; (4) co-management of direct and indirect sales channels; (5) report generation of ad inventory performance; (6) invoicing capabilities for a Publisher's direct campaigns; and (7) yield management technology.

55. The relevant geographic market is the United States, or in the alternative, predominantly English-speaking countries of the United States, Canada, the United Kingdom, and Australia. Publishers seek out publisher ad server services based on the service provider's ability to connect the Publisher with advertisers that would seek to target the Publisher's users. Because Publishers sell advertising space to advertisers based on, *inter alia*, the location of the Publishers' users, the geographic market's scope is determined by the Publishers' targeted user geographies, here, the United States, or in the alternative,

predominantly English-speaking countries of the United States, Canada, the United Kingdom, and Australia. A publisher ad server that could not connect Publishers with a significant pool of advertisers seeking to target American (or alternatively, English-speaking) users could not generate auction returns that rivaled publisher ad servers that could deliver such advertiser demand.

B. Google Dominates the Relevant Market

56. However the geographic component is defined, Google has market power in the Publisher Ad Server Market.

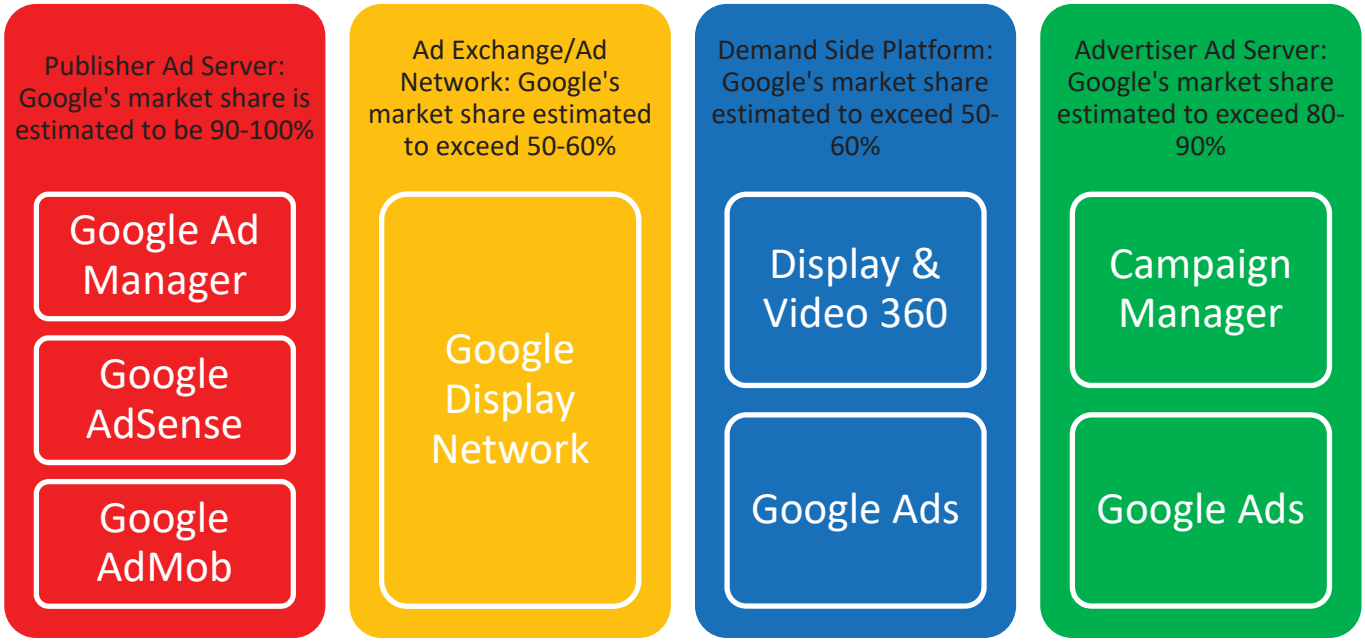

Figure 2: Google's Estimated Market Share at Each Level of the Ad Tech Stack

57. Google has a dominant share of the Publisher Ad Server Market, likely exceeding 90% of the market. Indeed, the United Kingdom's Competition & Markets Authority ("CMA") (the U.K.'s antitrust authority) found that Google had between 90% and 100% of the Publisher Ad Server Market (as measured by the money advertisers paid to place ads within U.K. Publishers' content.[5] Google holds similar market shares in the Publisher Ad Server Market in each geographic market.

[5] *See* Online Platforms and Digital Advertising, Market Study Final Report (July 2020), *available at* https://assets.publishing.service.gov.uk/media/5fa557668fa8f5788db46efc/Final_report_Digital_ALT_TEXT.pdf.

58. Although the CMA's market share analysis shows comparatively lower (but still quite high) market shares at the ad exchange/ad network and DSP levels of the Ad Tech Stack, the CMA's method would tend to understate Google's power at those levels of the Ad Tech Stack. Specifically, the CMA's analysis looked at how much money advertisers spent and how much money Publishers received over a specific time period, and then determined how much of that overall revenue traveled through the Google properties throughout the Ad Tech Stack. The analysis included, *inter alia*, direct-sold ads (*i.e.*, ads sold directly by Publishers to advertisers) that would show up as part of Google's market shares at the ad server levels on either side of the Ad Tech Stack (because advertisers spent the money as recorded by their Google ad server, and Publishers received it and placed the ad through their Google ad server), but not at the auction or DSP level because the direct-sold ads did not use DSPs' automated bidding services or participate in auctions. As a result, these direct-sold sums would suppress Google's apparent share of revenues at the auction and DSP levels of the Ad Tech Stack (as reflected in Figure 2) even though no Google competitor would capture such revenue. In addition, as a general matter, advertisers and Publishers generally use only one ad server each, but advertisers may use multiple DSPs and both Publishers and advertisers may use multiple auction sources. Although that situation may reflect some competition at the DSP and auction levels of the Ad Tech Stack, such competition is muted by the fact that the Publishers and advertisers that use non-Google DSPs and auctions also tend to use Google's offerings as well.

59. Other than Google, the other sellers in the Publisher Ad Server Market are small and fragmented. Indeed, since 2012, Google's closest competitors have either exited the market entirely or have been relegated to negligible market shares.

60. Google's market position in the Publisher Ad Server Market is protected by high barriers to entry.

61. First, Publishers who might look to switch ad server products face high switching costs because these server products must be programmatically and technologically built into the Publishers' operations.

62. Second, any potential rival seeking to gain market share at Google's expense must be able to compete with Google in two key areas: (1) the ability to deliver comparable data targeting and

attribution services; and (2) a pool of advertiser demand that would participate in non-Google auctions and generate comparable revenue to Google's auctions.

63. These two elements are interrelated due to Google's conduct. Google's consumer-facing businesses (including, *inter alia*, Search, Gmail, YouTube, and Chrome), as well as its ad tech products collect significant user data that Google makes available to its advertiser-clients for targeting purposes. Advertisers who switch away from Google lose access to Google's data targeting and attribution services, and no substitute service can match Google's data offerings. Because Google only allows Publishers who use Google's publisher ad servers to have full access Google's advertiser demand, other publisher ad server providers must supply access to comparable advertiser demand that can replace Google's advertiser demand for Publishers to switch. But, even if a potential rival publisher ad server provider could connect Publishers to a sufficiently large pool of advertiser demand, if those advertisers lacked data comparable to Google's offerings, the rival's pool of advertiser demand would tend to bid less—and thus not be a true substitute for—Google's advertisers. Thus, Google's pool of advertisers and data targeting and attribution services impose high barriers to entry.

64. Third, Google provides limited pricing information to Publishers. Thus, even if there were competing publisher ad server products for Publishers to switch to, those products would have significant difficulty in demonstrating to Publishers that switching is worthwhile because Google makes direct price comparisons nearly impossible.

65. These barriers inhibit entry and expansion by potential competitors in the Publisher Ad Server Market, evidencing Google's monopoly power in the Relevant Market.

VII. GOOGLE'S ANTICOMPETITIVE SCHEME

66. Google has engaged in a series of actions to acquire and maintain monopoly power in the Publisher Ad Server Market including: (1) anticompetitive acquisitions at each level of the ad tech stack, including in the Publisher Ad Server Market, (2) bundling and/or tying its advertiser-facing properties in the ad tech stack to its data services to collect and control advertiser demand, (3) requiring Publishers who seek access to Google's pool of advertiser demand to use Google's publisher ad server products, (4) self-preferencing and/or steering ad placements through Google's ad tech products, (5) using its market

power from other markets to impair actual or potential rivals from amassing data that could allow them to compete with Google, and (6) making an agreement with its biggest potential rival (Facebook, Inc.) to cooperate and not compete in the relevant market.

67. Google used this Scheme to achieve market dominance in the Publisher Ad Server Market.

A. Google Engaged In A Series Of Acquisitions To Acquire A Foothold At Each Level Of The Ad Tech Stack.

68. Google commenced its Scheme to dominate the Ad Tech Stack with a series of acquisitions.

69. The first and most significant such acquisition was Google's 2007 purchase of DoubleClick for $3.1 billion. Google purchased DoubleClick as a means of entering the markets for providing services within the Ad Tech Stack. DoubleClick provided publisher ad server services and operated the largest ad exchange. The DoubleClick products formed the basis of Google's ad tech offerings in ensuing years. As Google's submission to the United States House of Representative's Subcommittee on Antitrust, Commercial and Administrative Law acknowledged, prior to the DoubleClick acquisition, Google had "no meaningful presence" in the Ad Tech Stack. A July 2006 Google presentation suggested that, by acquiring DoubleClick, Google could obtain "self-reinforcing benefits" for Google's planned digital ad "ecosystem."

70. The Federal Trade Commission ("FTC"), as well as various foreign competition authorities, reviewed the DoubleClick acquisition. Ultimately, the FTC approved the merger, concluding that display advertising markets were "relatively nascent, dynamic and highly fragmented," and the DoubleClick acquisition did not threaten competition in the markets because other big companies appeared "to be well positioned to compete vigorously against Google."[6] However, as the New York Times recently reported, at least one of the FTC commissioners who voted to approve the merger has

[6] *See* Statement of Federal Trade Commission Concerning Google/DoubleClick, *available at* https://www.ftc.gov/system/files/documents/public_statements/418081/071220googledc-commstmt.pdf.

since expressed his regrets. Specifically, William Kovacic told the New York Times, "If I knew in 2007 what I know now, I would have voted to challenge the DoubleClick acquisition."[7]

71. Indeed, when Google purchased DoubleClick, it told Congress and the FTC that it would not combine the data collected on internet users via DoubleClick with the data collected throughout Google's ecosystem (*e.g.*, through Gmail, Search, etc.). But in 2016, Google reversed that commitment and combined its datasets.

72. Google followed its DoubleClick acquisition with additional ad tech properties:

a. In November 2009, Google acquired AdMob, a company with technology for serving ads in mobile apps. Google now uses AdMob technology to offer publisher ad server services in mobile apps.

b. In June 2010, Google acquired Invite Media, which offered a media buying optimization technology for display advertisers. Google now uses this technology as part of its DSP offerings, including Display & Video 360.

c. In June 2011, Google acquired AdMeld, a supply-side platform that Google integrated into its auction platforms.

d. May 2014, Google acquired an analytics and attribution provider known as Adometry, which Google integrated into its Google Analytics offering to provide improved attribution services.[8]

73. These acquisitions created and/or solidified Google's product offerings in the Ad Tech Stack.

[7] *See This Deal Helped Turn Google Into an Ad Powerhouse. Is That a Problem?*, The New York Times (Sept. 21, 2020), *available at* https://www.nytimes.com/2020/09/21/technology/google-doubleclick-antitrust-ads.html.

[8] In addition to these acquisitions, Google has made further acquisitions in the ad tech space relating to in-app and video advertisements: mDialog (June 2014); Directr (August 2014); Toro (February 2015); Famebit (October 2016).

B. Google Used Its Dominant Position Throughout the Ad Tech Stack to Engage In Exclusionary Conduct

74. Google has engaged in multiple types of exclusionary conduct to obtain, maintain, and enhance its market power in the Publisher Ad Server Market.

75. Google's substantial, detailed user profiles derived from its consumer-facing services (and further supplemented by its ad tech properties' data collection activities) is a must-have input for many advertisers. Other than perhaps Facebook, no other company can provide the data targeting abilities that Google can provide. As a result, Google could sell data targeting services to advertisers—and would have substantial market power in a market for such services if it did so. But instead of selling such services as a standalone product, Google ties its data targeting services to its advertiser-facing ad tech products (DSP and advertiser ad server offerings), requiring advertisers to purchase Google's ad tech services to receive its data targeting services.

76. Specifically, Google ties together its ad targeting and attribution data services with its ad server and DSP services. In other words, Google only lets advertisers, who buy ad space through Google's buying platforms (Google Ads and Google Display & Video 360), use Google's data for ad targeting and attribution purposes (including several types of data that only Google can collect, *e.g.*, Google's first-party data from the use of Google services—Gmail, Google Maps, Chrome, and the Android OS—data Google gleans from Publishers' websites that use Google's ad tech products, and Google's Search data). Thus, Google ties together separate products to advertisers: data—a must-have input for advertisers, particularly smaller advertisers without access to their own proprietary data—with its advertiser ad server and DSP. Each of these products could be made available to advertisers separately, but Google refuses to do so.

77. Because advertisers need significant scale to benefit from so-called "multi-homing" (meaning using more than one DSP and/or ad server), and because Google's ad targeting data is a key input, Google's tie of ad targeting data with advertiser-facing ad tech services effectively coerces advertisers to use Google's ad tech services to the exclusion of other ad tech service providers who cannot provide access to comparable data targeting services. The advertiser-facing tie effectively compels

a significant pool of advertisers to use Google's advertiser facing services (as set forth above, Google controls approximately 80–90% of advertiser ad server business).

78. For Publishers, Google ties its ad server and auction offerings. Prior to June 2018, Google offered its ad server and access to auctions as nominally separate products. But in June 2018, Google formally tied these two products together, requiring Publishers to use its ad server products to access its auctions (and the advertiser demand the auctions represent). Both before and after Google officially tied its ad server to accessing Google's auctions, Google restricted auction access to Publishers that used Google's ad server. Specifically, although Google's auctions can receive requests from non-Google ad servers, Google has never permitted its auctions to participate in real-time bidding against other companies' auctions.[9] This means that Publishers must use a Google ad server to have full access to Google's auctions and the corresponding pool of Google's advertiser demand. Because Google's auctions are the only way to obtain bids from advertisers using Google's advertiser-facing services in the Ad Tech Stack (representing 80%–90% of the advertising spend in the overall market), Google's conduct coerces Publishers to use Google's ad server irrespective of whether Google's tie was formal (post-June 2018) or whether Google's conduct coerced Publishers to treat the services as tied together (to access one, a Publisher needed to access the other).

C. Google Manipulates Its Ad Auction Processes to Preference Its Own Tied Auctions

79. To entrench its monopoly power further, Google manipulates the ad auction process.

80. Google's publisher ad server controls the auction process for at least 90% of advertisers' digital display ad spending. In this role, Google determines how advertiser bids from competing ad tech services (*e.g.*, other ad exchanges or ad networks) will be compared to Google's advertiser-clients' bids through Google's auctions. From at least 2010 to the present, Google used this favored position to preference its own tied auctions, and to disadvantage competing products.

[9] Absent Google's refusal to deal, Google's auction winner would compete in auctions head-to-head with the auction winners of other companies' auctions.

81. Google has exerted control over open-web digital display advertising by subtly changing the ways its auctions operate to maximize its own revenues to the disadvantage of both Publishers and advertisers.

82. Google is able to take these steps because it occupies the dominant position as the representative for most sellers (Publishers) and most buyers (advertisers), and because of its role in designing and conducting the auctions for the sellers' inventory (by virtue of its dominant market share in providing PAS services).

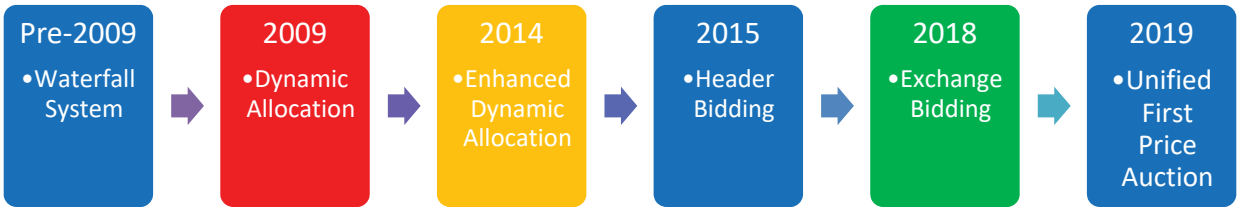

Figure 3: Evolution of Google Display Ad Auctions

83. During each time period set forth in Figure 3, Google found a way to preference its own auctions, disadvantage competitors' auctions, and/or ensure that its advertiser clients using its advertiser services in the Ad Tech Stack won the maximum number of impressions without maximizing the returns for Google's Publisher clients.

84. Such conduct suppresses revenues to Publishers and impairs rivals throughout the Ad Tech Stack. While it might appear in theory that the conduct could advantage Google's advertiser clients (through lower prices to win auctions), as set forth herein, Google does not pass these savings through to advertisers and instead retains any such "savings" for itself.

1. The Waterfall System (Pre-2009)

85. Prior to 2009, Google's display ad auctions allowed Publishers to prioritize their sources of demand for advertising (from deals sold directly by the Publishers and from auctions through one or more ad exchanges) within Google's publisher ad server using a "waterfall" sequence.

86. Publishers could prioritize their demand sources based on how the Publishers valued the demand sources, with direct-sold deals (if any) typically having priority over auctioned ads. The typical

auctions used a "second-price" auctioning mechanism.[10] Publishers would typically rank auction sources based on estimated performance using historical yield data.

87. When ad inventory became available (*i.e.*, when a user loaded the Publisher's page generating ad slots) and there was no direct deal ad eligible for placement, the Google publisher ad server selected the demand source in order of the Publisher's assigned rankings, with the highest-ranked source having the opportunity to conduct an auction and present a winning bid for the ad slot above a reserve price.

88. If that first auction sold the ad above the reserve, the auctioning process stopped there. If the reserve price was not met, Google's publisher ad server would offer the next exchange in the waterfall the opportunity to bid at a lower reserve price, and the process repeated for additional demand sources, lowering the reserve price each time.

89. Although this process helped Publishers reduce risk that ad inventory would not sell, it precluded ad exchange demand sources from bidding against each other in real time (which would maximize Publisher yield).

90. The Waterfall System failed to maximize revenues to Publishers because it did not allow all interested advertisers to bid in real time, nor did it allow Publishers to rank demand sources in the Waterfall in accordance with the demand sources' actual bids (instead relying only on estimated bids based on historic auction results).

91. This limitation reduced Publisher yields. For example, if the Publisher's estimated bids for its second (or third, or fourth, or fifth, etc.) demand source was inaccurate and those lower-ranked sources' advertisers would have valued the ad slots more (*i.e.*, bid higher amounts) than the first demand source, the Waterfall System did not allow those lower-ranked demand sources to bid on the ad slots.

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[10] Until recently, second-price auctions have been the norm in programmatic advertising. In a second-price auction, the winner only pays $0.01 more than the second highest bid. If Advertiser A bids $2.00 for an impression and Advertiser B bids $1.75, the auction clearing winning bid will be $1.76. Second-price auctions incentivize advertisers to bid in accordance with the value they place on the impression because they know that they will only have to pay the amount needed to beat the next highest bidder irrespective of their bid amount. First-price auctions, on the other hand, create incentives for advertisers not to bid as high as they value the impression and instead focus on optimizing their bids to bid as low as possible but still win the auction.

92. As set forth in Figure 4, if the Waterfall System has two demand sources (ad exchanges) both running second-price auctions, the publisher ad server would collect the bid from the first demand source using a reserve price (say $5). The auction clearing price may then be $5.01 and, because the reserve price was satisfied, the first auction would place the ad. However, if the second demand source's auction clearing price would have been $6.01, the Publisher effectively loses $1 for the ad placement due to the Waterfall System because that second demand source never gets the opportunity to bid.

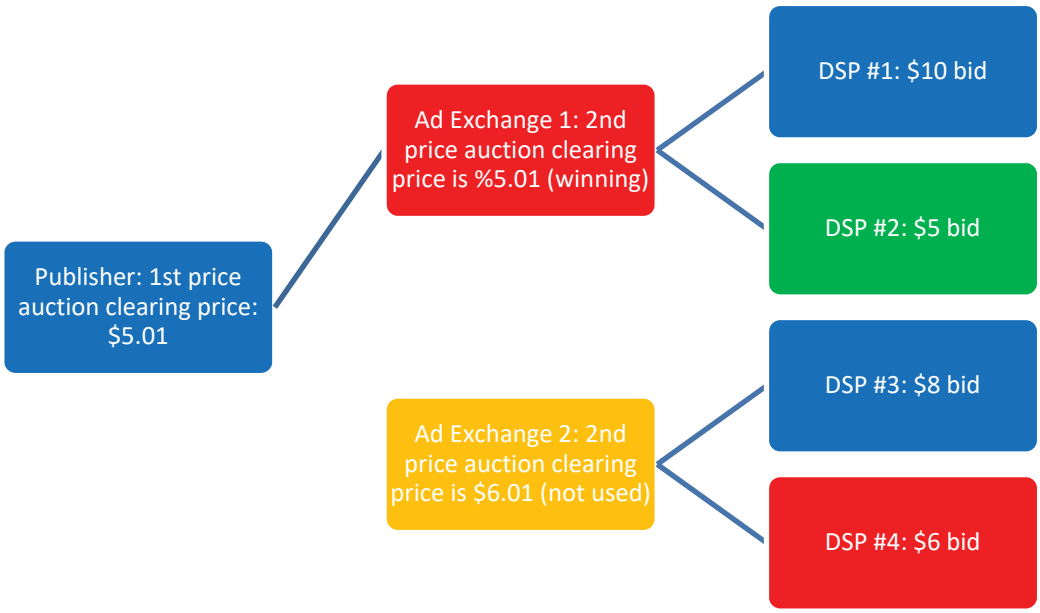

Figure 4: Lost Opportunity Due to Waterfall

93. Therefore, the Publisher cannot maximize its revenue for its ad slots because the advertisers that valued the slots the highest were not permitted to bid.

94. An additional issue created by the Waterfall System was slow-loading advertisements. The process of conducting successive auctions sometimes took long enough that users often left a page before the advertisement loads, creating issues with tracking ad performance and potentially causing the Publisher's content to load more slowly and diminishing user experience.

2. Dynamic Allocation (2009)

95. Beginning in or around 2009, Google's PAS used a system called "Dynamic Allocation" as a supplement to the Waterfall System.

96. With Dynamic Allocation, Google's PAS gave Google's own ad exchange an advantage: Google used the Publisher's highest estimated bid from a demand source in the Waterfall System (which Publishers inputted into the PAS) as the reserve price for Google's ad exchange's auction. If Google's ad exchange could beat that highest estimated price, Google placed the ad from its auction winner and no other demand source was given the opportunity to bid.

97. This gave Google's ad exchange a privileged position as the default first demand source in the Waterfall System.

98. Dynamic Allocation did nothing to address the inefficiencies of the Waterfall System; rather, it capitalized on those inefficiencies by imposing Google as the default first demand source.

3. Enhanced Dynamic Allocation (2014)

99. In 2014, Google implemented "Enhanced Dynamic Allocation," pursuant to which Google's ad exchange used an adjusted price from the highest value direct deal the Publisher had arranged as the reserve price for its own auction.

100. Enhanced Dynamic Allocation conferred an even greater advantage on Google's own ad exchange by allowing it to prioritize Google's ad exchange even ahead of Publishers' direct-sold deals in the Waterfall System.

101. Meanwhile other ad exchanges would only get to bid if (1) Google's ad exchange failed to meet the reserve, *and* (2) there was no direct deal qualifying for the space, *and* (3) the PAS reached the other ad exchange in the Waterfall System.

102. While this process created the potential to increase Publisher revenues in the short term (by selling higher-revenue programmatic ads over direct deals), overall, the likely effect was weakening Publishers' direct sales channels and driving advertisers to programmatic channels (which benefits Google over the Publishers' direct sales).

4. Header Bidding (2015)

103. To address the inefficiencies created by the Waterfall System and Google's Dynamic Allocation processes, Publishers and ad tech competitors began to develop and implement a process known as "header bidding."

104. There are two types of header bidding, client-side and server-side, each of which uses different means to allow Publishers to conduct real time auctions between multiple demand sources (*e.g.*, auctions and ad networks).

105. Client-side header bidding involves adding a piece of code to Publishers' websites which causes the user's browser to send ad requests to the Publishers' demand sources before the code initiates the Publisher's ad server system. The header bidding demand sources then submit their bids simultaneously.

106. Several ad tech companies offer server-side header bidding pursuant to which demand sources bid in a real time auction on a remote server controlled by a third party.

107. Although server-side header bidding is marginally faster than client-side header bidding, server-side header bidding results in lower Publisher revenues because it impairs advertisers' ability to match their data to the user to whom the ad will be served.

108. Through either type of header bidding, Publishers' ad inventory sales process avoids the Waterfall System altogether.

109. With the Waterfall system, once the publisher ad server identifies a demand source in the Waterfall that meets the floor price, the process is over. But header bidding involves all demand sources

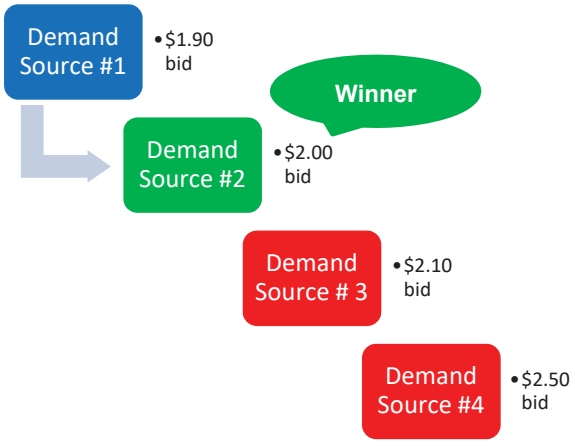

Figure 5: Waterfall with $2.00 Floor Price

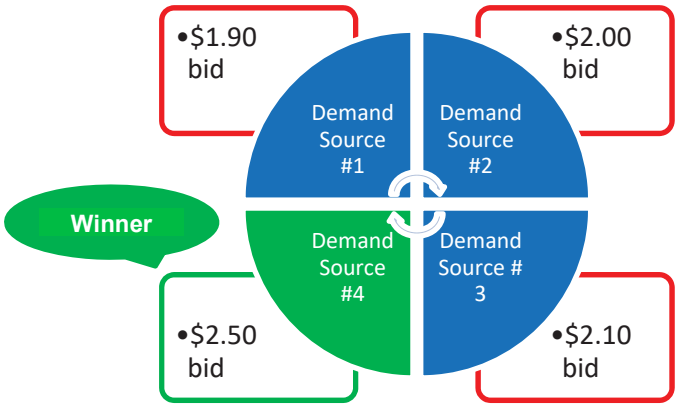

Figure 6: Header bidding with $2.00 Floor Price

bidding simultaneously, and therefore allowing the highest bidder to prevail. *Compare* Figure 5 (Waterfall auction), *with* Figure 6 (Header bidding auction).

110. The advent of header bidding significantly increased revenues to Publishers, sometimes up to 70%.

111. Google undermines client-side header bidding by refusing to allow its ad exchange to participate in header bidding auctions.

112. Because Google controls so much of the advertiser demand, Google's refusal to participate thins header bidding auctions, causing them to generate lower clearing bids. Google then provides its ad exchange a "last look" advantage after header bidding processes are complete. Through this process, after the client-side header bidding process sends the winning bid to Google's PAS, Google offers the spot to its ad exchange to see whether Google's exchange can beat the price.

113. Google's "last look" does not achieve the same result as participating in the header bidding process. With the last look, Google's ad exchange must only beat the header bidding clearing price. But if a header bidding advertiser would pay more than its winning bid, simply affording Google the last look results in a lower sale price because Google's winning bidder and the header bidding winner did not have to determine which would bid the highest in an auction between them. For example, if the winning header bidding advertiser is willing to bid $3.00 but needs only $2.00 to clear the header bidding auction. Google's last look advantage would allow Google's advertiser to win the auction at $2.01 rather than needing $3.01 to beat the header bidding winner.[11] As a result, Google can optimize its advertiser bids to bid the lowest amount needed to beat the header bidding auction clearing price rather than competing directly with the header bidding auction participants.[12]

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[11] Notably, Google's advertisers do not benefit from these lower prices because Google still charges its advertisers a higher price (*e.g.*, the value the advertiser ascribes to displaying an ad to a particular user/type of user) and keeps the difference between that price and the clearing bid price.

[12] Google also used its control over the initial AMP format to make AMP incompatible with client-side header bidding. More recently, Google has introduced an AMP solution that allows client-side header bidding, but it imposes strict limits on the number of demand sources allowed to participate in bidding and a time constraint on response times from demand sources. The News Corp. Submission argues that these constraints "shut out some exchanges." *Id.* at 26.

5. Exchange Bidding (2018)

114. In 2018, Google introduced "Exchange Bidding" (also known as "Open Bidding") on its publisher ad servers. Google introduced Exchange Bidding to prevent header bidding from invading Google's market dominance. Exchange Bidding is a unified auction between rival ad exchanges that is, in essence, a form of server-side header bidding. Each time inventory is for sale, with Exchange Bidding activated by the Publisher, the Google publisher ad server runs consecutive auctions as follows:[13]

- First, Google conducts a second-price auction within Google Ads (a Google DSP that provides advertiser-facing services to smaller advertisers) to select the highest bidder among Google Ads advertisers.
- Second, Google conducts a second-price auction within Google's primary ad exchange (AdX) where Google Ads would compete with other DSPs.
- Third, Google conducts the Exchange Bidding auction, a final first-price auction where AdX would compete against other exchanges.

115. In that final auction, however, if the winning bidder of the Exchange Bidding auction is a non-Google advertiser client (*e.g.*, the winning bidder uses a competing ad exchange), Google charges the winning bidder a surcharge equal to 5%–10% of the winning bid. Google does not change this fee to Google's advertiser clients. Thus, Google places a 5%–10% tax on competition from other ad exchanges, raising its rivals' costs (and forcing advertisers to pay more). Google does not pass through this tax to its Publisher clients.

6. First-Price Unified Auction

116. Over time, many ad exchanges moved away from second-price auctions to first-price auctions. By September 2019, Google completed its switch to a first-price unified auction.

117. When Google "unified" its auctions, it collapsed its second-price auctions within its ad exchange into its Exchange Bidding auction, meaning that Google ran one first-price auction rather than second-price auctions followed by a first-price Exchange Bidding auction.

[13] Exchange Bidding must be actively enabled in Google's publisher ad server.

118. While in some ways, Google's unified auction switch should benefit Publishers (*e.g.*, by having Google's ad exchange compete in real-time with other demand sources), it appears that the switch was driven by Google's desire to implement unified pricing. Specifically, when Google unified its auction, it removed its Publishers' ability to set different reserve prices (or floor prices) for different demand sources. Google's move to unified pricing was driven by its observation that Publishers were setting higher floor prices for Google's ad exchange than for Publishers' other demand sources.

119. From Publishers' perspective, the need for differential reserve prices is heightened with a first-price auction, making Google's switch from a second-price auction with differential reserve prices to a first-price auction with unified pricing particularly problematic. Although the switch to first-price auctions, in the short term, can increase the value of winning bids (because advertisers will pay the amount they bid rather than $0.01 more than the second highest bid as they would in a second-price auction), over the long term, revenues do not increase because of the practice of bid shading.

120. Bid shading refers to the use of an algorithm created by DSPs that optimizes bidding in ad auctions. These algorithms use machine learning capabilities and input historical data such as site, ad size, exchange and competitive dynamics to enable advertisers to pay as little as possible without impacting their win rate.

121. DSPs, including Google's DSP offerings, use bid shading algorithms in first-price auctions to try to approximate the results of a second-price auction. Because of the prevalence of these bid shading approaches, Publishers have seen relatively small increases in revenue from the switch to first-price auctions.

122. Google's unified auction impairs Publishers' ability to counteract bid shading by imposing unified pricing. As one Publisher put it:

> When a seller faces asymmetric bidders in an auction, it is optimal to set a higher reserve price (price floor) for the stronger bidder. This incentivizes the stronger bidder to engage in less 'bid shading', which improves revenue for the auctioneer (in this case the publisher). Google's exclusionary conduct, including its informational advantages, imply that publishers have a strong incentive to set higher reserve prices for Google's ad exchange. This partially (but not fully) mitigates Google's artificial advantages. Following the rule change [prohibiting publishers from setting separate price floors], publishers must use the same price floor for all buyers and bidders. As a result, publishers cannot run optimal auctions that require Google DSPs to pay for artificial information advantages.

123. Thus, these pricing rules not only impair Publishers' ability to counteract bid shading in general, but specifically protect Google's ability to engage in bid shading.

D. Google Uses Its Monopoly Power In Other Markets To Impair Potential Competitors In The Publisher Ad Server Market.

124. Google has used its dominance in other markets (notably search and internet browser markets) to impair potential competitors' ability to collect data that could be used to compete with Google's advertiser-facing offerings in the Ad Tech Stack, which could undermine Google's stranglehold on advertisers that Google uses to control the Publisher Ad Server Market. Notably, Google has taken at least three actions in recent years that have impaired actual or potential competitors' ability to collect data that could be used for advertising purposes.

125. First, Google has recently taken steps to stop supporting third-party cookies in its Chrome Browser. Third-party cookies have been a key mechanism in digital advertising for years. Cookies are pieces of text that websites place on users' browsers when they visit the website. The text contains code that identifies the user to the website so that the website can pull information on the users' past interactions with the site (*e.g.*, prior pages viewed, items in the users' shopping carts, etc.). In addition to cookies the website places on a user's browser, third parties can place cookies on a user's browser in certain circumstances (*e.g.*, Facebook places cookies on users' browsers when the users visit sites that utilize Social Plugins). These third-party cookies allow the third parties to aggregate information about particular users across all websites that the user visits.

126. Various companies use third-party cookies to collect data on users to offer advertisers increased targeting abilities. However, Google's exclusionary conducts has directly impaired these companies' ability to compete in providing ad targeting services.

127. Second, Google recently released a new version of Chrome that introduced a new encryption feature that would prevent internet service providers ("ISPs") from collecting user browsing data. Through this action, Google prevents ISPs like Verizon, which has offered competing services in the Ad Tech Stack, from collecting data on users' browsing history that ISPs could use or sell to be used to compete with Google for advertiser clients.

128. Third, Google uses its dominance in Search to coerce Publishers to offer content in "accelerated mobile pages" ("AMP") format. Once the Publisher loads content in AMP format, Google creates a cached version on Google's servers. Each time a user then navigates to the Publisher's AMP content from Google properties (*e.g.*, Search or Google News), instead of directing the user to the Publisher's server, Google serves the AMP content from Google's AMP cache server. This practice prevents Publishers from collecting their own data on users (which could be used to facilitate the Publisher's advertising objectives, or combined and/or sold to other parties to aggregate into datasets that could be used to compete with Google).

129. Each of these practices may significantly impair potential competitors in the Publisher Ad Server Market by blocking several of the most common ways that companies collect data for purposes of targeting advertisements and providing attribution services. Yet, each of these practices would have limited, if any, effect on Google's ability to collect user data because Google does not rely on third-party cookies or scraping DNS data in amassing its user data for ad targeting purposes. Similarly, because Google collects first party data through its advertising intermediation services and because Google hosts the AMP cache, the AMP cache conduct only adversely affects Publishers and has no effect on Google.

130. By inducing advertisers to utilize Google's Ad Tech Stack to distribute their content, Google has made Publishers dependent upon Google for selling their display ad inventory.

131. Google also took actions to impair directly competitors' and Publishers' ability to generate their own datasets on users that Publishers could use to sell advertising through Google's competitors in the Publisher Ad Server Market.

132. Google's conduct in this regard has allowed it to continually increase its market share at the expense of other ad tech services providers and to the detriment of Publishers.

E. Google Made an Unlawful Agreement with Its Biggest Competitor to Suppress Competition.

133. In March of 2017, Facebook publicly announced it would support header bidding. By doing so, Facebook would enable web and mobile app Publishers and advertisers to bypass the fees associated with transacting through Google's ad server. When bidding into Google's ad server, ad

exchanges and ad networks had pay fees to Google. Because header bidding cost nothing, Facebook's announced approach would let Publishers and advertisers evade fees altogether.

134. The wider industry also thought that Facebook was prepared to challenge Google's monopoly. Google and Facebook operate the largest ad networks for display and in-app mobile inventory in the United States (*i.e.*, Google Display Network, AdMob, and Facebook Audience Network). The same day as Facebook's March 2017 header bidding announcement, industry publication AdAge wrote that Facebook was poised to execute a "digital advertising coup against rival Google and its DoubleClick empire." A Business Insider headline the same day read, "Facebook Made an Unprecedented move to Partner With Ad Tech Companies – Including Amazon – to Take on Google."

135. Even before Facebook's March 2017 announcement, Google was concerned about large entrants supporting header bidding. In an October 2016 internal presentation, a Google employee expressed concern about the potential for competition from Facebook and other large tech companies, saying "to stop these guys from doing HB [header bidding] we probably need to consider something more aggressive."

136. Thus, when Facebook announced its support for header bidding, Google realized its fears that Facebook's support could crack Google's stranglehold on the Ad Tech Stack generally, and the Publisher Ad Server Market in particular. Indeed, Facebook has its own ad tech tools (the Audience Network) that Publishers could use, in theory, to replace the function of Google's ad server products, along with substantial user data and a significant pool of advertisers. As a result, Facebook represented a viable threat to Google's market share if it were to enter the Publisher Ad Server Market and support header bidding.

137. Facebook's backing of the header bidding threat was a credible threat in part because it would allow advertisers to bid on Publishers' ad inventory without paying the 5%–10% tax Google levied on non-Google advertisers that won Google's Exchange Bidding auctions.

138. Facebook's announcement sought to and did induce Google to negotiate a deal with Facebook. Within months of Facebook's header bidding announcement, Google and Facebook began formal negotiations to reach a deal not to compete head-to-head in display advertising.

139. The companies' efforts to avoid competition were successful. The ultimate outcome of the negotiations was a September 2018 Google-Facebook agreement that resulted in Facebook significantly curtailing its header bidding initiatives. Facebook would instead bid through Google's advertising tools and in return, Google agreed to give Facebook a leg up in its auctions.

140. The agreement was known internally at Google as "Jedi Blue," a code name for the deal that references "Star Wars." Facebook executive Sheryl Sandberg signed the deal with Google and described the deal to Facebook CEO Mark Zuckerberg, among other executives, as "a big deal strategically."

141. Google and Facebook were aware that the Jedi Blue agreement could trigger antitrust investigations and liability. The word "antitrust" appears in the Jedi Blue contract no fewer than 20 times. As part of the agreement, Google and Facebook agreed to cooperate and assist one another if they ever faced an investigation into the agreement to work together in online advertising.

142. Pursuant to the deal, Facebook committed to spending a minimum of $500 million annually in Google-run auctions, and Google agreed that Facebook would win a fixed percentage of those auctions. According to an internal Facebook document, Facebook believed the deal was "relatively cheap" as compared with direct competition.

143. By providing Facebook with advantages, Google has further manipulated auctions. Google already manipulates Publishers' ad auctions by giving Google bidders information and speed advantages. In 2019, these advantages helped them to win the overwhelming majority of Publishers' ad auctions, hosted by Google. Now Google offered Facebook information advantages, speed advantages, and other prioritizations, to the detriment of other auction participants. Google publicly misrepresents that all bidders in Publishers' auctions compete on an equal footing. "All participants in the unified auction, including Authorized Buyers and third-party yield partners, compete equally for each impression on a net basis," Google says. This, of course, is false.

144. Given the scope and extensive nature of cooperation between the two companies, Google and Facebook were highly aware that their agreement could trigger antitrust violations.

VIII. GOOGLE'S SCHEME FORECLOSED THE PUBLISHER AD SERVER MARKET

145. Through the anticompetitive conduct described above, Google forecloses other Ad Tech Stack service providers from competing for advertisers and Publishers. Because of its acquisitions and subsequent advantages Google conferred on itself by tying its various distinct products together, Google amassed network effects throughout the Ad Tech Stack. These network effects are self-reinforcing: advertisers use Google ad services to access Google's data advantages, and Publishers use Google ad services to access the advertiser demand that Google uniquely amasses through its data offerings.

146. Google then further reinforces its market position by impairing potential competing Ad Tech Service providers by using its market power in other markets (*e.g.*, the internet browser market and internet search services market) to prevent potential rivals from collecting rival datasets that could make the potential rivals viable alternatives to Google for advertisers (which could, in turn, loosen Google's hold on the Publishers in the Publisher Ad Server Market).

147. For Facebook, the one ad tech services provider Google could not foreclose through its conduct due to Facebook's independent ability to amass user data and substantial book of advertiser clients, Google entered into an illicit market allocation and bid-rigging agreement. The agreement turned Facebook from a potential challenger to Google's market dominance into a structural support of such dominance.

148. Finally, Google foreclosed what few service providers remained by steering auctions to Google's services and away from the other service providers, and taxing/raising such rivals' costs when the rivals managed to win auctions for Google's Publisher-clients' ad inventory notwithstanding the hurdles Google imposed. Because of this conduct, potential rivals lack the ability to generate scale sufficient to compete with Google.

149. The foreclosure caused by Google's conduct in the Publisher Ad Server Market can be seen by the exit of competitors and limited entry over the past decade or so. Several large advertising technology firms offered publisher ad server solutions, including substantial competitive offerings from Yahoo!, AppNexus, and OpenX. Today, few publisher ad server competitors remain in the United States. Yahoo's publisher ad server was acquired in 2017 and shuttered in 2019. AppNexus's publisher ad server

was acquired by AT&T and rebranded to Xandr but faces an uncertain future as AT&T is reportedly considering selling the publisher ad server. OpenX shut down its ad server solution in 2019.

150. Entry into the Publisher Ad Server Market has been remarkably weak over the past decade too. This lack of entry is a result of high switching costs for Publishers augmented by the artificial barriers arising from Google's anticompetitive conduct. As a result, Publishers have very limited alternatives to Google's publisher ad serving product, and rivals are unable to compete by improving quality or lowering price.

IX. GOOGLE'S SCHEME CAUSES ANTICOMPETITIVE EFFECTS

151. Google's conduct with respect to the ad tech stack has had multiple anticompetitive effects.

A. Google's Scheme Suppresses Ad Revenues Publishers Receive for Their Ad Inventory Below Competitive Levels

152. Google's Publisher-facing services work with its advertiser-facing services to manipulate the auctioning and ad placement processes in ways that favor Google and suppress the net advertising income Publishers receive. Google represents the interests of two sides of the Ad Tech Stack (advertisers and Publishers) that conflict; advertisers want to pay as little as possible, whereas Publishers want to maximize their revenues. Google, as the representative of both sides of the Ad Tech Stack, represents neither interest. Google instead prioritizes Google's services to maximize the revenue Google can retain from advertiser payments before transmitting the net payments to Publishers; in other words, Google seeks to maximize the spread between what advertisers pay and what Publishers receive in connection with each ad placement because Google retains that difference.

153. In a competitive market, service providers in the Ad Tech Stack would compete for Publishers (and advertisers) based on (1) the cut the ad server/ad exchanges take from advertiser spending on Publishers' ad inventory, and (2) efficiency of auction mechanisms (*e.g.*, Publishers would seek out ad servers and auction providers that would represent the Publishers' interests, including maximizing Publishers' revenue from auctions as opposed to prioritizing the vendors' own services to

maximize the vendors' ability to capture commissions).[14] This competition would drive down the cost of services in the Ad Tech Stack and increase Publishers' ad revenues by more efficiently running auction processes (as well as improve the quality of Publisher-facing ad tech services, *e.g.*, by increasing analytic data on auctions, placements, and revenues).

154. In short, Google retains at least 30% of what Google's advertisers pay to place ads on Google's Publishers' pages (and analyses of pre-2019 periods estimate that Google took around 50% of advertiser payments), and in a competitive market, Google would retain a lower share of what would likely be higher gross revenues.[15] Given that Google's returns on capital are around 40% for its digital advertising intermediation business, while Publishers have been starved of advertising revenues, the CMA has raised concerns that Google's "take" is supra-competitive and suppresses payments to Publishers.

B. Google's Scheme Reduces Publishers' Content Output and Quality Along with Publishers' Revenue-Generating Abilities.

155. As set forth above, Google's conduct has impaired Publishers' ability to monetize their content by reducing competition in the Publisher Ad Server Market and charging supracompetitive prices. But Publishers require more revenue to increase output and improve quality.

156. Publishers invest significant resources in content creation. For example, Publishers who operate news sites pay journalists to research and report on stories, pay for production of visual media, and have editors, producers, fact-checkers, etc. to ensure content quality.

157. By reducing Publishers' ability to monetize their content, Google necessarily reduces the quality of Publishers' content by reducing their ability to pay to create it.

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[14] Vendors would also likely compete on non-price bases *e.g.*, speed of auction processes/ad placements, ability to control types of advertisements that may appear on the Publishers' content, and integration with the Publishers' systems and needs.

[15] Gross revenues would likely be higher absent Google's conduct for a variety of reasons including, without limitation, auction bids would be higher as participants combine into unified auctions without Google's self-preferencing and manipulations, and because Google's commission would decrease and Publishers would see higher net revenues, Publishers would expand output creating more ad impressions for sale, which leads to higher gross revenues as well.

158. As News Corp. put in in their recent comments to the FTC:

> High-quality news publishers are built on the notion that investing in a superior product yields benefits for all parties. But when publishers cannot effectively monetize their content, they cannot make the necessary investments to continue to produce high-quality content. Without such investment, journalists/content writers will be laid off, offices will be closed, and longer-term investigations and writing projects will be cut. The platforms and the publishers are thus locked in an existential (for publishers) battle over whether consumers will pay for news content—which would make them more likely to navigate directly to publishers' sites and apps—or whether content will be made available for free, and intermediated by the platforms. The stakes are amplified by the fact that the platforms also control the only alternative form of monetization, advertising. Given the disparate power between the two sides, the likeliest outcome will be the reinforcement of the platforms' dominance and the further degradation of publishers' ability to generate quality journalism.

See Comments of News Corp to the Federal Trade Commission Re: Hearings on Competition and Consumer Protection in the 21st Century at 13 (Aug. 20, 2018).

159. Even for those Publishers that have sufficient revenue, reputation, and influence to maintain the quality and quantity of their content, receipt of *additional* revenues would allow for even better content and quality. It is almost certain that Google's conduct reduces output and quality from smaller and less well-established Publishers and prevents others from starting in the first place.

160. Google does not balance these anticompetitive effects with corresponding procompetitive effects. Both Publishers (through reduced compensation) and consumers (through reduced content quality and reduced content quantity) experience these anticompetitive effects.

C. Google's Scheme Causes Anticompetitive Effects for Both Google's Advertiser Clients and Non-Google Advertisers.

161. In addition to suppressing Publisher revenues, limiting Publishers' output, and reducing content quality (which harms consumers), Google's Scheme increases prices advertisers pay.

162. First, Google restricts the ability of its DSP customers to compete for the inventory of Publishers using non-Google ad servers. This restriction has the effect of penalizing advertisers using Google's ad tech services by not allowing them to bid on non-Google Publishers' ad inventory through Google's DSPs. Google, of course, does this as part of the Scheme to coerce Publishers to use Google's Publisher-facing products (*i.e.*, by denying Publishers access to Google's advertisers through competing Publisher-facing products, Google can coerce Publishers to use Google's products irrespective of the harms such policy imposes upon Google's advertisers). Further, some evidence indicates that at least

prior to 2019, Google caused its own advertiser clients to pay more than the auction-clearing price (allowing Google to retain the difference between the advertiser's payment that Google determines and the auction-clearing price), thus artificially raising prices to its advertisers.

163. Second, Google prevents advertisers that do not use Google's services from having an equal opportunity to bid on Google's Publisher-clients' advertising inventory. For example, prior to 2018, Google manipulated the auctioning process for its Publisher clients to allow its demand sources to outbid other ad exchanges' pools of advertisers without ever allowing those rival ad exchanges to bid. As a result, Google effectively excluded non-Google client advertisers from bidding for significant portions of Google's Publisher-clients' ad inventory.

164. In addition, since 2018, when Google began to allow non-Google advertisers to bid in "Open Bidding" auctions against Google's advertisers, Google has charged non-Google advertisers an additional fee of 5%–10% when those advertisers outbid Google's own auctions.

X. GOOGLE'S SCHEME CAUSES PUBLISHERS ANTITRUST INJURY

165. As a direct and proximate result of Google's anticompetitive conduct, as alleged herein, Plaintiff and members of the Class suffered substantial losses to their business or property in that their revenues from selling non-search digital display advertising space were artificially suppressed during the Class Period. The full amount of such damages will be calculated after discovery and upon proof at trial.

166. Google used its Scheme to obtain, maintain, and enhance its monopoly power in the Publisher Ad Server Market.

167. Due to Google's ill-gotten market power, Plaintiff and the Class were forced to utilize Google's publisher ad server services, pursuant to which Plaintiff and the Class paid Google a supracompetitive cut of advertising revenues Publishers generated for user visits to their sites. Absent this anticompetitive conduct, however, Plaintiff and members of the Class would have received more revenues for advertising on their content.

168. Moreover, because of the reduced revenues Publishers can generate due to this Scheme, Publishers have been forced to reduce output, lay off content creators (*e.g.*, journalists), and many have gone out of business altogether.

169. Thus, as a direct and proximate result of this anticompetitive Scheme, Google reaps more revenue (including, without limitation, a cut of ad revenues through the Google Ad Manager), suppresses Publishers' revenues, and forces Publishers to reduce the content they produce causing further reductions in revenues.

170. The conduct comprising Google's anticompetitive Scheme is continuing and so are the damages suffered by members of the Class.

XI. INTERSTATE COMMERCE

171. Google engages in interstate commerce and in activities substantially affecting interstate commerce including, without limitation, (1) providing consumer services, such as Search, Gmail, YouTube, and Android OS, to consumers throughout the United States and globally, (2) providing advertiser buying platforms, Google Ads and Google Display & Video 360, to advertisers targeting consumers throughout the United States and globally, and (3) providing Google Ad Manager, Google AdSense, and Google AdMob to Publishers based throughout the United States and globally. Publishers, both foreign and domestic, use Google's ad tech services to sell ad inventory targeted at users across the United States. Both foreign and domestic advertisers use Google to target advertisements to Publishers' users across the United States.

XII. CLASS ALLEGATIONS

172. Plaintiff brings this class action is brought under Rules 23(a) and 23(b) of the Federal Rules of Civil Procedure on behalf of the "Class," defined as follows:

> All Publishers that sell digital display advertising inventory through a Google publisher ad server targeting consumers in the United States between December 23, 2016 and the date the Court certifies the Class.

173. Excluded from the Class are: (1) any Judge or Magistrate presiding over the class action and members of their families; (2) Defendant and its subsidiaries, parents, successors, predecessors, or any entity in which Defendant has a controlling interest; (3) persons who properly execute and file a timely request for exclusion from the class; and (4) the legal representatives, successors, or assigns of such excluded persons.

174. The number of Publishers in the Class are so numerous that joinder of all members in one action is impracticable. The Class is reasonably estimated to include at least one hundred (if not thousands of) participants. While the precise number, names, and addresses of all members of the Class are unknown to Plaintiff at this time, such information is ascertainable in several ways, including, without limitation, from analysis of Defendant's records.

175. The objective facts are the same for all members of the Class in that, *inter alia*, Google's conduct in monopolizing the Publisher Ad Server Market was the same, *e.g.*, Google's conduct outlined herein vis-à-vis Publishers and advertisers, its tying of separate products, its market allocation agreement with Facebook, and its conduct impairing other companies' and Publishers' ability to collect data to be used for targeting ads.

176. Within each Claim for Relief asserted below, the same legal standards govern resolution of the same operative facts existing across all members of the Class's individual claims. If Defendant is liable to one member of the Class, Defendant is liable to all members of the Class.

177. Because the claims of each member of the Class have a common origin and share a common basis in terms of Defendant's systematic misconduct, there are common questions of fact and law which exist and which are susceptible to common answers as to each Class member under Federal Rule of Civil Procedure 23(a)(2), and which predominate over any questions affecting only individual members under Federal Rule of Civil Procedure 23(b).

178. Substantial questions of fact and law that are common to all members of the Class, and which are susceptible to common answers and which control this litigation and predominate over any individual issues, include, *inter alia*, the following:

a. whether the Publisher Ad Server Market is a relevant market in this case;

b. whether Google possesses monopoly power in the Publisher Ad Server Market;

c. whether, through the conduct alleged herein, Google willfully acquired, maintained, and/or enhanced its monopoly power in the Publisher Ad Server Market;

d. whether Google's conduct, as alleged herein, is anticompetitive;

e. whether Google's conduct, as alleged herein, had anticompetitive effects in the Relevant Market;

f. whether Google entered into an agreement with Facebook not to compete in providing ad tech services to Publishers;

g. whether Google entered into an agreement with Facebook for Facebook to win a fixed percentage of Google's auctions;

h. whether Google's conduct caused Plaintiff and members of the Class antitrust injury;

i. the appropriate measure of damages; and

j. the propriety of declaratory and injunctive relief.

179. Plaintiff's claims are typical of the claims of the Class, and arise from the same course of conduct undertaken by Google against the Class. There are no conflicts between the interests of the named Plaintiff and the interests of the members of the Class that Plaintiff seeks to represent. The relief Plaintiff seeks is typical of the relief sought for the members of the Class.

180. Plaintiff will fairly and adequately represent and protect the interests of the Class because of the common injury and interests of the members of the Class and the uniform conduct of Google that is, and was, applicable to all members of the Class. Plaintiff has retained counsel competent and experienced in antitrust class action litigation that will adequately represent and protect the interests of the members of the Class.

181. Class certification is appropriate under Federal Rule of Civil Procedure 23(b)(3) not only because common questions of fact and law predominate, but also because a class action is superior to other available methods for fairly and efficiently adjudicating the controversy. The prosecution of separate actions by individual members of the Class would impose heavy burdens upon the courts and Google, and would create a risk of inconsistent or varying adjudications of the questions of law and fact common to the Class. Class action status, on the other hand, would achieve substantial economies of time, effort and expense, and would assure uniformity of decision as to persons similarly situated without sacrificing procedural fairness or bringing about other undesirable results.

182. Plaintiff is not aware of any management difficulties which should preclude maintenance of this litigation as a class action. Plaintiff does not anticipate any difficulty in the management of this action as a class action. Rule 23 provides the Court with authority and flexibility to maximize the efficiencies and benefits of the class mechanism and reduce management challenges. The Court may, on

motion of Plaintiff or on its own determination, utilize the provisions of Rule 23(c)(4) to certify any particular claims, issues, or common questions of fact or law for class-wide adjudication; certify and adjudicate bellwether class claims; and utilize Rule 23(c)(5) to divide the class into subclasses.

XIII. CAUSES OF ACTION

COUNT I: Violation of Section 2 of the Sherman Act, 15 U.S.C. § 2.

(Brought by the Class Against Google)

183. Plaintiff hereby incorporates by reference the preceding paragraphs as if they were fully set forth herein.

184. The relevant geographic market is defined to include the United States, or in the alternative, the principally English-speaking countries of the United States, Canada, the United Kingdom, and Australia.

185. The relevant market is the Publisher Ad Server Market.

186. Google possesses market power in the Publisher Ad Server Market, regardless of the scope of the geographic market. Google has obtained, enhanced, and maintained dominance in the Publisher Ad Server Market through the Scheme alleged herein to impair and foreclose competition in that market in several ways, including, without limitation, (a) acquiring businesses that gave Google substantial footholds at each level of the Ad Tech Stack, (b) using data amassed through its consumer services (*e.g.*, Search, Gmail, YouTube, Maps, Chrome, Android OS) to lock-in substantial advertiser demand (tying advertiser ad tech services to Google's data services), (c) using its control over such advertiser demand to require its advertisers to bid only in Google's own auctions, (d) tying its publisher ad server services to Google's ad auctions—thus requiring Publishers who want to access Google's advertiser demand to use Google's ad server services, (e) impairing actual and potential rivals' ability to amass datasets that would enable them to better compete with Google, and (f) making an agreement to cooperate instead if compete with its largest potential competitor.

187. As a direct and proximate result of Google's continuing violation of Section 2 of the Sherman Act, Plaintiff and members of the Class have suffered injury and damages in the form of artificially suppressed advertising revenues in amounts to be proven at trial.

188. Plaintiff, on behalf of itself and other members of the Class, seek money damages from Google for these violations. These damages represent the amount of Google's overcharges and additional advertising revenues Publishers in the Class would have received absent Google's anticompetitive Scheme alleged herein. Damages will be quantified on a class-wide basis. These actual damages should be trebled under Section 4 of the Clayton Act, 15 U.S.C. § 15.

189. Plaintiff, on behalf of itself and other members of the Class seek injunctive relief barring Google from engaging in the anticompetitive Scheme alleged herein. The violations set forth above, and the effects thereof, are continuing and will continue unless injunctive relief is granted.

190. Plaintiff's and Class members' injuries are of the type the antitrust laws were designed to prevent, and flow directly from Google's unlawful conduct.

COUNT II: Violation of Section 1 of the Sherman Act, 15 U.S.C. § 1.

(Brought by the Class Against Google)

191. Plaintiff hereby incorporates by reference the preceding paragraphs as if they were fully set forth herein.

192. Google and Facebook, Inc. entered into and carried out an unlawful market allocation and bid-rigging agreement in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1.

193. In 2017, Facebook announced its support for the auction process known as "header bidding" to signal to Google that Facebook intended to compete head-to-head with Google in the Publisher Ad Server Market.

194. Combined with Facebook's significant pool of advertisers and unique dataset derived from its third-party cookies and Social Plugins (*e.g.*, the "Like" and "Share" buttons on Publishers pages) and Facebook's social network platform, Facebook's endorsement of header bidding (which Publishers prefer to Google's systems) represented a significant competitive threat to Google's market dominance.

195. Following Facebook's announcement, Google and Facebook commenced negotiations into an agreement not to compete.

196. In September 2018, Google and Facebook reached an agreement—which Google code-named "Jedi Blue."

197. Pursuant to the Jedi Blue agreement, Facebook would not come into the Publisher Ad Server Market supporting header bidding, and would use Google's ad tech tools.

198. Through Jedi Blue, Facebook committed to spending at least $500 million annually on Google's auctions and Google, in return, committed to ensuring that Facebook would win a fixed percentage of auctions.

199. Facebook's agreement not to compete with Google for Publishers' business and its agreement to spend $500 million annually reinforced Google's market dominance in the Publisher Ad Server Market. Absent the Jedi Blue agreement, Facebook would have competed for Publishers' ad server business which, in turn, would have created price competition in the market that does not otherwise exist. Further, absent the Jedi Blue agreement, Facebook's advertising dollars would have been available to other ad tech providers through competition. Instead, the Jedi Blue agreement ensured that Google would not have to compete with its most significant potential competitor and that it would control significant additional advertising demand that further cemented Google's market share in the Publisher Ad Server Market.

200. Further, because Google guaranteed that Facebook would win a fixed percentage of auctions, the Jedi Blue agreement was not only a market allocation agreement, but also constitutes bid-rigging. Indeed, assured of winning a fixed percentage of auctions, Facebook would not need to bid as high to win the auctions, thus suppressing auction revenues and preventing advertisers that should have won more auctions from doing so.

201. Google's illicit market allocation and bid-rigging agreement with Facebook caused Publishers' injury.

202. Indeed, by agreeing not to compete in the Publisher Ad Server Market, Google cemented its dominance in the market and charged Publishers supracompetitive prices for its ad server services.

203. Further, by guaranteeing that Facebook would a fixed percentage of auctions, Google's agreement with Facebook suppressed auction revenues Publishers received for their ad inventory.

204. Google entered into the agreement with the purpose and intent of restraining trade in the Publisher Ad Server Market. As one internal Google email put it, the endgame was to "collaborate when necessary to maintain the status quo…." of Google continuing to dominate the market.

205. Facebook too sought to reap supracompetitive rewards without competition. Facebook's negotiating team sent an email to Facebook CEO Mark Zuckerberg saying that the company faced options: "invest hundreds more engineers" and spend billions of dollars to lock up inventory, exit the business, or do the deal with Google. Ultimately, Facebook and Google did the deal, ensuring that Google could charge Publishers supracompetitive prices and suppress the revenues Publishers could generate on their content to Google's advantage.

XIV. DEMAND FOR JUDGMENT

206. WHEREFORE, Plaintiff, on behalf of itself and the Class, respectfully asks the Court for a judgment that:

a. Certifies the Class as a class action pursuant to Fed. R. Civ. P. 23(a), 23(b)(2), and 23(b)(3), and appoints Plaintiff and its attorneys as class representatives and class counsel, respectively;

b. Awards Plaintiff and each member of the Class treble the amount of damages actually sustained by reason of the antitrust violations alleged herein, plus the reasonable costs of this action including attorneys' fees;

c. Orders such equitable relief as is necessary to correct for the anticompetitive market effects caused by the unlawful conduct of Defendant;

d. Awards such other relief the Court deems reasonable and appropriate.

XV. JURY TRIAL DEMAND

207. Plaintiff hereby requests a jury trial for all issues so triable.

Dated: December 23, 2020

Respectfully Submitted,

By: /s/ Sophia M. Rios
Sophia M. Rios (305801)
BERGER MONTAGUE PC
12544 High Bluff Drive, Suite 340
San Diego, CA 92130
Tel: (619) 489-0300
Fax: (215) 875-4604
srios@bm.net

Eric L. Cramer (*Pro Hac Vice to be filed*)
Michael C. Dell'Angelo (*Pro Hac Vice to be filed*)
Patrick F. Madden (*Pro Hac Vice to be filed*)
Michaela Wallin (*Pro Hac Vice to be filed*)
BERGER MONTAGUE PC
1818 Market Street, Suite 3600
Philadelphia, PA 19103
Tel: (215) 875-3000
Fax: (215) 875-4604
ecramer@bm.net
mdellangelo@bm.net
pmadden@bm.net
mwallin@bm.net

Daniel J. Walker (*Pro Hac Vice* to be filed)
BERGER MONTAGUE PC
2001 Pennsylvania Ave., NW
Suite 300
Washington, DC 20006
Tel: (202) 559-9745
dwalker@bm.net

Michael K. Yarnoff (*Pro Hac Vice* to be filed)
KEHOE LAW FIRM, P.C.
Two Penn Center Plaza
1500 JFK Blvd., Suite 1020
Philadelphia, PA 19102
Tel: (215) 792-6676
myarnoff@kehoelawfirm.com

Attorneys for Plaintiff and the Class